



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-----------------|-------------|----------------------|---------------------|------------------|
|-----------------|-------------|----------------------|---------------------|------------------|

10/715,233

11/17/2003

Luis A. Castillo

10348-004

3702

29391

7590

04/15/2008

BEUSSE WOLTER SANKS MORA & MAIRE, P. A.

390 NORTH ORANGE AVENUE

SUITE 2500

ORLANDO, FL 32801

EXAMINER

KEEFER, MICHAEL E

ART UNIT

PAPER NUMBER

2154

MAIL DATE

DELIVERY MODE

04/15/2008

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

| | | | |
|------------------------------|--------------------------------------|--|--|
| Office Action Summary | Application No. 10/715,233 | Applicant(s) CASTILLO ET AL. | |
| | Examiner MICHAEL E. KEEFER | Art Unit 2154 | |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 28 January 2008.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 56-75 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 56-75 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. This Office Action is responsive to the RCE and Amendment filed 1/28/2008. Claims 56-75 are pending. Claims 31-55 have been cancelled by Applicant's amendment.

Claim Rejections - 35 USC § 101

2. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

Claim 74 is rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter. Claim 75 is directed to a 'system', however, there is no definite structure given to the system, and given Applicant's statements in paragraphs 114 and 115 of the specification the Examiner is led to believe that the system of claim 74 may be merely software per se. (i.e. functional descriptive material)

Claim 75 is rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter. Claim 75 is directed to a 'physical computer-readable storage medium', however, this computer readable medium maps back to the specification paragraph 114 which defines computer readable media as any transmitting or receiving medium. To overcome this rejection, the Examiner recommends amending paragraph 114 to clearly state that computer readable media and transmission media are separate definitions, and that the computer readable medium cannot be a transmission media.

Claim Rejections - 35 USC § 103

3. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.
4. Claims 56-57, 62-63, 65-66, 68, 69-75 are rejected under 35 U.S.C. 103(a) as being unpatentable over Greenwald (WO 91/86444), in view of Callay (US 5610923), in further view of Kojima (US 6384848).

Regarding **claims 56, 63, 68, 74 and 75**, Greenwald discloses:

invoking an automated triage process that incorporates validation and remediation into an event dispatch process, wherein the automated triage process comprises a plurality of predetermined validation routines for determining valid and invalid events and a plurality of remediation routines for attempting to correct the problem without manual intervention, said validation and remediation routines based on an event class such that the same routines are called for events within the same event class for consistent event processing, comprising: (Greenwald discloses defining event classes linked to validation routines, see the fault handlers and fault types on page 23, lines 8-16. The fault handlers are tied to fault type and done in a priority order based on the type of fault. Page 21, lines 12-15 disclose receiving faults from the network, and page 23 lines 8-16 disclose fault handlers that perform diagnosis and tests on faults. The Examiner notes that Greenwald automatically invokes fault handlers without user intervention.)

(a) determining the event class for the event received; (Page 23, lines 8-16 disclose that the type of event (fault type) is determined in order to determine what fault handlers to use)

(b) automatically invoking the validation routine for that event class to filter invalid events; (Page 23, lines 8-16 disclose that the type of event (fault type) is determined in order to determine what fault handlers to use)

(c) if the validation routine determines the event is invalid or if there is no remediation routine for that event class, ending the automated triage process; (page 26 lines 27-30 disclose that the return value of the fault handler is analyzed to determine if further processing is necessary)

(d) ending the automated triage process by passing the event back to a network management program that handles the event dispatch process along with triage data comprising validation results so that the triage data may be used by the network management program in the event dispatch process. (page 19 lines 30-36 disclose including the processing steps and their results in a trouble ticket that is forwarded to a user, the network management program being the system that displays in the information to the user.)

Greenwald discloses all the limitations of claims 56 and 74-75 except for performing automated validation of the event before performing remediation of the event.

The general concept of checking to make sure an alarm is valid (i.e. not a false positive) in the system before further processing is well known in the art as

taught by Callay. (Abstract, line 1 teaches determining whether a maintenance message generated is or is not a real fault. I.e. a False Positive (claims 62 and 68))

It would have been obvious to one of ordinary skill in the art at the time of the invention to combine Greenwald with the general concept of checking to make sure an alarm represents a real fault in the system before further processing as taught by Callay in order to save computation cycles in the system by not wasting them by diagnosing spurious problems.

Greenwald and Callay teach all the limitations of claims 56 and 74-75 except for the automatic remediation being associated with the event class.

The general concept of having automatic remediation available for system events and alarms is well known in the art as taught by Kojima. (Col. 4 lines 39-47 teach that an automatic correction function can be associated with an event/alarm. Additionally, if no automatic correction function is defined for an event, no correction function is executed)

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Greenwald and Calley with the general concept of having automatic remediation available for system events and alarms as taught by Kojima in order to allow the operator spend more time to handle more complex errors and faults.

Regarding **claim 57**, Greenwald discloses:

wherein the validation routine tests the object and stores the validation result, updates a first variable to designate a validation status, and updates a second variable that contains a path to the validation result. (page 19 lines 30-36 disclose including the processing steps and their results)

Regarding **claim 62**, Greenwald discloses:

wherein the network management program uses the triage data to create any required problem tickets or notifications for the event. (Page 19, lines 30-36, disclose a presentation system for the fault objects.)

Regarding **claim 65**, Greenwald discloses:

performing event validation on the event based on event class designates secondary events as invalid events. (page 18 lines 33-35 discloses the suppression of secondary faults)

Regarding **claim 66**, Greenwald discloses:

automatically dispatching a problem ticket for the valid event. (page 19, line 30 - page 20 line 3 disclose presenting fault information (i.e. a problem ticket) to a user to solve the problem)

Regarding **claim 69**, Greenwald discloses:

the step of creating an event record descriptive of the event prior to performing event validation. (Page 18 lines 26-27 disclose the creation of fault objects as soon as a fault is detected)

Regarding **claims 70-71**, Greenwald discloses:

the step of updating the event record with a status of the event as valid or invalid after performing event validation. (the fault object is updated after every fault handler is executed)

Regarding **claim 72**, Greenwald discloses:

appending information indicative of results of the automated event processing to a problem ticket. (Page 19 lines 30-36 disclose including the processing steps and their results in the trouble ticket that is forwarded to the user.)

Regarding **claim 73**, Greenwald discloses:

wherein invoking the validation routine comprises dynamically loading a script dependent on the event class. (The Examiner notes that fault handlers are scripts that are loaded when an event occurs, and that they are invoked based upon fault type.)

5. Claim 67 is rejected under 35 U.S.C. 103(a) as being unpatentable over Greenwald, Callay, and Kojima as applied to claim 56 above, and further in view of Hermann et al. (US 2002/0138638), hereafter Hermann.

Greenwald, Callay, and Kojima teach all the limitations of claim 67 except for ignoring events from devices that are in maintenance.

The general concept of ignoring alarms from machines that are in maintenance is well known in the art as taught by Hermann. ([0034] discloses ignoring alarms from systems that are undergoing maintenance.)

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Greenwald, Callay, and Kojima with the general concept of ignoring alarms from machines that are in maintenance as taught by Hermann in order to further eliminate alarms to process from the system.

6. Claim 62 is rejected under 35 U.S.C. 103(a) as being unpatentable over Greenwald, Callay, and Kojima as applied to claim 56 above, and further in view of Golov et al. (US 6124790), hereafter Golov.

Greenwald, Callay, and Kojima teach all the limitations of claims 62 except for marking transient events as invalid events.

The general concept of ignoring transient events in a fault handling system is well known in the art as taught by Golov. (Col. 2 lines 9-11)

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Greenwald, Callay, and Kojima with the general concept of ignoring transient events in a fault handling system as taught by Golov in order to filter out redundant alarm messages that do not convey useful or necessary fault information. (Golov, Col 2 lines 15-19)

7. Claims 58-61 are rejected under 35 U.S.C. 103(a) as being unpatentable over Greenwald, Callay, and Kojima as applied to claim 56 above, and further in view of Daniel et al. (US 5321837), hereafter Daniel.

Greenwald, Calley and Kojima teach all the limitations of claims 58-61 except for the use of a default event handler if an event class does not have a pre-defined event handler.

The general concept of assigning a default handler for an object that does not have a specific handler is well known in the art as taught by Daniel. (Col. 2 line 43 teaches the assigning of a default event class to events that do not fit any of the pre-defined classes, which inherently would lead to a default event handler for that class. In addition, Col. 2 line 68 - Col. 3 line 3 teach the use of a default action for an event that does not have a pre-defined action.)

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Greenwald and Calley with the general concept of assigning a default handler for an object that does not have a specific handler as taught by Daniel in order to make sure that all events have some processing applied to them regardless of class (i.e. logging).

Regarding **claim 58**, Greenwald discloses:

wherein step (b) further comprises invoking a default validation routine that stores a summary of the problem as a validation result and ends the automated triage process if no validation routine exists for the event class. (The Examiner notes that a summary of the problem is stored inherently in Greenwald when in page 18, lines 26-27 the raw fault data are organized into fault objects. Additionally, the Examiner notes that since in Greenwald performs step b) as stated in claim 56 when a routine does exist, even if Greenwald did not disclose a default validation routine, it would still meet the limitations of the claim.)

Regarding **claim 59**, Greenwald discloses:

further comprising re-invoking the validation routine for the event class after invoking the remediation routine to determine whether the problem was resolved by the remediation routine. (page 15, lines 5-7 disclose verifying that the problem has been fixed)

Regarding **claim 60**, Greenwald discloses:

wherein the re-invoked validation routine re-tests the object and stores the validation result, and updates the first variable to indicate the validation status. (page 19 lines 30-36 disclose including the processing steps and their results)

Regarding **claim 61**, Greenwald discloses:

wherein the triage data comprises the first variable indicating the validation status and the second variable containing the path to the stored validation results. (Page 19, lines 30-36, disclose a presentation system for the fault objects. Clearly the validation status must be present, as it is stated that “all information” about the fault is presented. It is inherent that the presentation system must have some way of knowing a path to the validation results, or else there would be no way for the system to present them to the user.)

Response to Arguments

8. Applicant's arguments filed 1/28/2008 have been fully considered but they are not persuasive.

9. Applicant argues that Greenwald does not teach automatic fault resolution (i.e. not by a user). First, the Examiner asserts that Greenwald does not teach away from this, in fact Greenwald appears to teach this on page 20, lines 4-11, where the fault

Art Unit: 2146

recourse involves various actions, implying that the fault recourse is performing the actions, not a user. However, even if this was not the case, automating a previously manual process is an obvious variation, well within the ability of one of ordinary skill in the art. See MPEP 2144.04 Section III.

10. The Examiner does not believe that the amendment made to the independent claims does not distinguish from Greenwald. Specifically, "... validation and remediation routines based on an event class such that the same routines are called for events within the same event class...". In Greenwald, the routines are invoked for the same events of the same type.

11. The Examiner invites Applicant to schedule an interview to discuss possible amendments with the Examiner prior to filing them in response to this Non-final Office action to ensure that the amendments will overcome the art of record.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to MICHAEL E. KEEFER whose telephone number is (571)270-1591. The examiner can normally be reached on Monday through Friday 9am-5pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nathan Flynn can be reached on (571) 272-1915. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 2146

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

MEK 4/11/2008

/Joseph E. Avellino/
Primary Examiner, Art Unit 2146